

EL1901

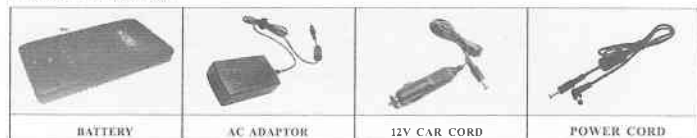
External Lithium-ion Notebook Battery

USER MANUAL

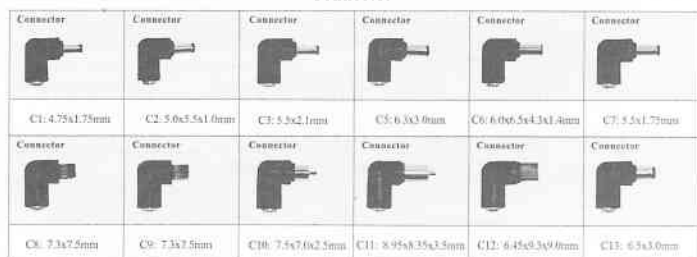
Congratulations on the purchase of your Notebook External Lithium-ion Battery! We know you will be pleased with your purchase -- both with the quality that come with the functionality of your new battery. This instruction information sheet is designed to help you use your battery safely and effectively.

Preparation

Check for items as show below



Connector



A few things to remember as you get started...

1. Save this instruction sheet for future reference.
2. Read all information clearly before you begin using your battery.
3. Do not attempt to modify this product -- including battery, adaptor and connectors.
4. Do not use this battery near water and clean only with a dry cloth.

Instructions

1. Select the correct connector for your Notebook (see **Cross Reference Chart** below). Other devices may not work with this battery.
2. Attach the appropriate connector to the socket on one end of the adaptor car cord (ensuring that the connector fits securely into the socket)
3. Insert the connector into the DC input socket of your Notebook and begin using.

1. SPECIFICATION

Input:	DC 12V~19V (MIN power 60W)
Selectable Main Output:	DC 16V (MAX 4.75A) or DC 19V (MAX 4.75A)
USB Output:	DC 5V 0.5A
Total Output Power:	MAX 95W
Power Indicator	4 Level LED
Size:	Approx. 270mm x 145mm x 33.10mm
Weight:	Approx. 1.3kg



2. SOURCES OF POWER SUPPLY

AC-DC Adapter 12V~19V,60W

The adapter supplied with the battery.

Original Adaptor for Notebook

Supplier can offer different for connecting the original adaptor of the notebook to the battery.

(the voltage of the original adaptor must be in the range of 12V to 19V)

Car Cord (12V input from vehicle)

This battery can be charged by the car battery using the 10A- fused car cord supplied.

3. THE MAIN OUTPUT PORT

The voltage of the main output port is 16V or 19V selectable.

Different connectors are provided.

The length of the power cord is 0.5m.

4. USB OUTPUT PORT

This battery has an USB output which deliver 5V, 0.5A power to mobile phone, PDA, etc.

5. 4-LEVEL LED BATTERY CONDITION INDICATOR

User can check the battery condition, by pressing this button and the battery and the four LEDS will light up according to the battery condition.

LED 4 LED 3 LED 2 LED 1

During charging,

LED1 will light up in red colour.



When fully charged,

LED1 will blink in red colour



During the charging process and the button is pressed, the four LEDS will be turn on in green colour and act like a fuel gauge for batteries:

0 - 25%



25-50%



50-75%



75-100%



6. SAFETY DEVICE AND PROTECTION

Over-discharge Protection

When the single cell voltage is less than $2.30 \pm 0.08V$, the over discharge protection device will engage. The resulting discharge current should be below 1"A.

Short-circuit Protection

When discharge current exceeds 6.13A, the over discharge current protection will engage and disconnect the discharge current.

Over-current Protection

When battery load current exceeds 5.5A, over-current protection will activate and current will be disconnect.

Over-charge Protection

When the single cell voltage is more than $4.225 \pm 0.025V$, the over charge protection device will be activated and charging will stop.

Over-voltage Protection

When the output voltage exceeds 22V, the over-voltage protection circuit will activate and current will be disconnect in order to protect the notebook.

7. SAFETY PRECAUTIONS AND PROPER HANDLING

If the battery is handled improperly, it may cause the notebook to malfunction and damage the battery.

- The battery shall be fully charged before first use.
- Always keep the battery in a cool and dry place.
- Do not disassemble or modify the battery.
- Do not short circuit the battery.
- Do not use or leave battery near fire, stove or heated place (with temperature $80^{\circ}C$). It could melt the resin separator causing it to overheat.
- If submerged in water, the safety circuitry of the battery may be damaged and the safety devices will not function properly. Causing overheating, ignition and burst to internal occur.
- Do not apply extreme pressure the battery to avoid potential deformation had damage.
- An dishonest connection of the battery terminals will short circuit the battery. Resulting overheating, ignition and damage to the battery.
- If any abnormality occurs during using the battery, stop using it in mediately and take the Battery to your supplier for checking.

8. OPERATING METHOD

When EL1901 is connected to a notebook and an input source such as AC-DC adapter or 12v car battery using the car cord is also connected at the same time, the power of the EL1901 will be consumed by the notebook and it will not be charged by the AC-DC adaptor . Or the 12V car battery.



CORRECT OPERATING METHOD



CORRECT CHARGING METHOD



INCORRECT CHARGING METHOD



9. Cross-Reference Chart .

Product code	Brand	Fit 16V laptop computer models and others**
C3	Compaq	Armada 100, Armada 1100, Armada 1120, Armada 1125, Armada 1130, LTE 5000, LTE 5150, LTE 5200, LTE 5250, LTE 5300, LTE 5350, LTE 5400, LTE 5450, LTE 5500, LTE 6000
	Toshiba	Satellite T1900, T1900CS, T2400, T4500, T4600, T4700, T4800, T4850, T4900
	ACER	Extensa 515 series, Travelmate 512 series
	IBM	Thinkpad 240, Thinkpad 310, Thinkpad 380, Thinkpad 385XD, Thinkpad 390E, Thinkpad E530, Thinkpad 560, Thinkpad 740, Thinkpad X30, Thinkpad X31, Thinkpad R40e, Thinkpad 570, Thinkpad 600, Thinkpad 770, Thinkpad i1200, Thinkpad i1300, Thinkpad i1700, Thinkpad x series
	Sager	SAGER 5100C, NP3350I, NP3360V series
C5	VAIO	VAIO picturebook PCG-C1X5, VAIO PCG-505TR, VAIO PCG-505TS, VAIO PCG-505TX, VAIO PCG-505F, VAIO PCG-505FX, VAIO PCG-505G, VAIO PCG-505GX, VAIO GR
	IBM	Thinkpad 350, Thinkpad 350C, PS/Note 425 series
	NEC	Versa LX, Versa SX series
	Toshiba	Libretto 20CT, Libretto 30CT, Libretto 50CT, Libretto 60CT, Libretto 70CT, Satellite 200, Satellite 300, Satellite 1200-S252, Satellite 1400, Satellite 1555, Satellite 1800, Satellite 2060CDS, Satellite 2065CDS, Satellite 2100, Satellite 2200, Satellite 2400-S, Satellite 2500, Satellite 2600, Satellite 2700, Satellite 2800, Satellite 4000, Satellite 4280DVD, Satellite 4300, Satellite 5000, Satellite T1800, Satellite T1850 series, Satellite 4100XDV, Satellite T2100CDX, Satellite 5205-S503, portege 300, portege 600, portege 4000, portege 4005, portege 4010, portege 7000, portege T3400, portege T3600 series, portege 440, portege 450, portege 460, portege 470, portege 480, portege 490, portege 4200, portege 6000 series, Tecra 520CDT, Tecra 530CDT, Tecra 550CDT, Tecra 700, Tecra 710CDT, Tecra 720, Tecra 730, Tecra 740CDT, Tecra 750, Tecra 780, Tecra 8000, Tecra 9000 series
	Compaq	Advantage Explorer 212 series, Advantage Explorer 486DX4, Advantage Explorer 100XL
C6	CMV	Picture Book All models
	Fujitsu	Lifebook A series, Lifebook B series, Lifebook C series, Lifebook E series, Lifebook L series, Lifebook P series, Lifebook S series, Lifebook 2700X, Lifebook 280DX, Lifebook 3700X, Lifebook 985TX, Lifebook 990TX2, Lifebook 400 series, Lifebook 500 series, Lifebook 600 series, Lifebook 700 series, Milan, Monte Carlo, Montenegro
	Panasonic	CF-17, CF-25, CF-27, CF-28, CF-34, CF-37, CF-41, CF-45, CF-47, CF-48, CF-61, CF-62, CF-71, CF-72, CF-M34, CF-V25, ToughBook 25, ToughBook 27, ToughBook 28, ToughBook 34, ToughBook 37, ToughBook 47, ToughBook 48, ToughBook 71, ToughBook 72, ToughBook M34
	Samsung	Sens 700, Sens 800 series
	Sharp	Aclius A110, A150, A250, A280, A290 series
C13	Sony	VAIO picturebook PCG-431L, VAIO PCG-C1 series, VAIO PCG-500 series, VAIO PCG-GP series, VAIO PCG-R370, VAIO PCG-V505AC, VAIO SR series(all models), VAIO PCG-TR1/B, VAIO PCG-481N
	Toshiba	Satellite 2450 series, Satellite 2455 series, Tecra S1 series
Product code	Brand	Fit 19V laptop computer models and others**
C1	Compaq	Armada 110 series, Armada E500, Armada E700, Armada M300, Armada M700, Armada V300, Tablet PC T100 Evo N110, Evo N150, Evo N200, Evo N400e, Evo N410e, Evo N600e, Evo N610e, Evo N800e, Evo N800v Presario 900, Presario 2800 series, Presario 2800T, Presario 2805US
	Trigem	Dreambook A series, Dreambook F series, Dreambook T series, Dreambook U series, Dreambook X series
C2	Samsung	Sens 900, Sens 950, Sens V10, Sens 690
C3	ACER	AcerNote 350 series, AcerNote 370 series, AcerNote 850C, AcerNote Light 350, AcerNote Light 360, AcerNote Light 370, AcerNote Light 380 series, P100 Extensa 355, Extensa 500, Extensa 501, Extensa 502, Extensa 503, Extensa 600, Extensa 610 series, Extensa 505DX, Extensa 506DX, Travelmate 505, Travelmate 506, Travelmate 507, Travelmate 524 series
	AMS TECH	Rodeo 3500 series, MP-975A Travelpro 100, Travelpro 1950, Travelpro 1965, Travelpro 2000, Travelpro 6000 series, Travelpro 12CT, Travelpro 1961CT, Travelpro 1970CT
	AST	Ascentia 800N series, Ascentia 810N, Ascentia 910N, Ascentia 925N, Ascentia 920N, Ascentia P series
	Compaq	Armada 4100 series, Armada 4200 series, Presario 300, Presario 900, Presario 1500, Presario 2800 series
	Gateway	Solo 1100, Solo 2100, Solo 2150, Solo 2200, Solo 2300 series, Solo 2500 series, Solo 5100 series, Solo 9100 series, Solo 9300 series
Power Cord	Micron	Transport XKE, Transport Trek, Transport VLX-e
	Sager	5200 series
	Sharn	PC 3000 series, PC 8000 series, PC 9000 series, PC S400
	Twinhead	SlimNote 5100 series, SlimNote 5505, SlimNote 575, SlimNote 600D, SlimNote 6100 series, SlimNote 100 series, SlimNote 875 series, SlimNote 890 series, SlimNote 9 series, SlimNote 9100
	Acer	AcerNote 367, AcerNote 390 series, Extensa 360 series, Extensa 390 series, Extensa 900, Extensa ESS3-391T, Travelmate 242FX(MS2138)
C5	AMS TECH	Rodeo 1000 series, Rodeo 1010 series, Rodeo 7000, Rodeo 7030, Rodeo 7620, Rodeo 7630, Rodeo 7640XL, Travelpro 180, Travelpro 1900
	Compaq	Armada 2924 series, Evo N105, Evo N115, Evo N160, Evo N180, Evo 18XL, Evo 2700 series, Evo 2700T, Evo 800XL, Presario 700 series, Presario 800, Presario 800XL, Presario 1000 series, Presario 1200 series, Presario 710, Presario 720, Presario 12XL, Presario 1400, Presario 14XL, Presario 1600, Presario 1700, Presario 17XL, Presario 1800
	DELL	Inspiron 3000(BIOS A00), Inspiron 3500 series(BIOS A14), Inspiron 7000 series(BIOS A15)
	HP	Omnibook XE, Omnibook XE2, Omnibook XE3 series, Omnibook ZT, Omnibook ZE, Omnibook XZ, Omnibook XT series, Omnibook 500, Omnibook 900, Omnibook 4100, Omnibook 4150, Omnibook 6000 series, Omnibook 2100, Omnibook 3000, Omnibook 3100 series, Omnibook 4000, Omnibook 7000, Omnibook 7100, Omnibook 7150 series, Pavilion ZE, Pavilion XT, Pavilion ZF series, Pavilion N3000 series, Pavilion N3100, Pavilion N3150, Pavilion N3250, Pavilion N3270(N3290/5), Pavilion N3310, Pavilion N3310, Pavilion N3350, Pavilion N3370, Pavilion N3390, Pavilion N3410, Pavilion N5000 series, Pavilion N5100, Pavilion N5125, Pavilion N5130, Pavilion N5150, Pavilion 5170(N5190/5), Pavilion N5200, Pavilion N5210, Pavilion N5270(N5290/5), Pavilion N5300, Pavilion N5340, Pavilion N5380, Pavilion N5350(N5390/5), Pavilion N5400 series, Pavilion N5511L, Pavilion N5584, Pavilion Z11100, Pavilion XH series, Pavilion XZ185, Pavilion XZ275, Pavilion XZ295, Pavilion XZ355, Pavilion XE328, Pavilion ze4100, Pavilion zel1000 series
	IBM	Thinkpad i1400, Thinkpad i1442, Thinkpad i1460, Thinkpad i1480, Thinkpad i1482, Thinkpad i1500, Thinkpad i1522, Thinkpad i1700, Thinkpad i1720 series, Thinkpad T40
C6	Micron	TransPort Trek2 233, TransPort Trek2 266, TransPort Trek2 300 DVD
	NEC	Versa 500, Versa 550D, Versa 2400 series, Versa 2500 series, Versa 5000, Versa 5060 series, Versa 5080 series, Ready 440T
	Sager	6200 series, 7200, 8549, D20, 86, 87, 8700, 98, NB8600, NB8700, NP8100, NP8300, NP8500, NP8600, NP8700, Pentium 86 series
	Sharp	PC 3010 series, PC 3020 series, PC 3050 series, PC 3060 series, PC 3150 series
	Toshiba	Satellite 1600, Satellite 1700, Satellite 1900, Satellite 3000, Satellite 1715XCD series, Satellite 1905-S301, Satellite 1935-S801, Satellite 2430 series, Satellite 2435 series
C7	Twinhead	SlimNote 910CV, SlimNote 9133 series, SlimNote 9150TZ, SlimNote 9166TZ, SlimNote VY, SlimNote VXE, SlimNote VXE3, SlimNote P88, SlimNote P88TE
	Hyundai	Multiscap All models
	NEC	Ready 220T, Ready 230T, Ready 330T, Ready 340T, Ready 360T
	Samsung	Sens 500, Sens 810, Pro500
	Sony	VAIO PCG-700, VAIO 800, VAIO 900, VAIO 705, VAIO 707, VAIO 731, VAIO 717, VAIO 719, VAIO 729, VAIO 735, VAIO 748, VAIO 808, VAIO 812, VAIO 818, VAIO 838, VAIO PCG-F, VAIO PCG-R505, VAIO PCG-XG, VAIO PCG-R505D, VAIO R505DX, VAIO GRX series
C8	ACER	Travelmate 220 and 260 series
	DELL	Latitude C840(BIOS A13), Latitude X200(BIOS:A06, A09) Inspiron 2650(BIOS:A05, A13) 2500, Inspiron 5000(BIOS A04)
C12	IBM	Thinkpad 355 series, Thinkpad 360 series, Thinkpad 370, Thinkpad 380 series, Thinkpad 450C, Thinkpad 700 series, Thinkpad 720 series, Thinkpad 750 series, Thinkpad 755 series, Thinkpad 760 series, Thinkpad 765 series, Thinkpad 790